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REMARKS

Claims 1-42 are currently pending in the subject application and are presently under consideration. Claims 1, 21, 30, 33, and 40-42 have been amended as shown at pages 2-8 of this Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection of Claims 33 and 42

Claims 33 and 42 are objected to because of minor informalities. These claims have been amended to correct any deficiencies related to this objection and therefore withdrawal of this objection is respectfully requested.

II. Rejection of Claims 1-15, 21-30, 32-39, 41 and 42 Under 35 U.S.C. §101

Claims 1-15, 21-30, 32-39, 41, and 42 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Independent claims 1, 21, 30, 41 and 42 have been amended to cure any deficiencies related to this rejection. Accordingly, this rejection should be withdrawn.

III. Rejection of Claims 1-42 Under 35 U.S.C. §103(a)

Claims 1-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ding ("Analysis of gene expression profiles: class discovery and leaf ordering", RECOMB 2002, April 2002), in view of Uomini (US 5,819,269). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Ding and Uomini, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicants' disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The subject invention relates to organizing newsgroups into clusters based upon cross posts between newsgroups. A weighted graph is constructed with newsgroups as the vertices and cross-posts as the edges to facilitate analysis of the degree to which newsgroups are related. In particular, independent claim 1 (and similarly independent claims 21, 30 and 40-42) recites *an engine that constructs a weighted graph with a subset of the newsgroups represented as vertices of the graph, and cross-postings relating to the subset of newsgroups represented as edges*.

Ding and Uomini do not teach or suggest the aforementioned claimed features of applicants' invention and also provide no motivation to be combined. To the extent Ding relates in any manner to applicants' claimed invention, it merely teaches clustering of data – there is no teaching or suggestion that the vertices of a weighted graph are newsgroups and that the edges are cross posts between the newsgroups as in the claimed invention. Ding is concerned with clustering data related to tissue sample and gene responses to understand what role genes play in diseases. The prior art reference states, "We briefly introduce the min-max cut graph partition and clustering method very recently developed for internet newsgroup clustering" which is the single reference to internet newsgroup clustering in the cited art. Ding goes on to describe the min-max cut algorithm in generic terms. Ding provides no details as to how this clustering method is used with regard to internet newsgroup clustering and specifically fails to disclose what the vertices and edges are in the weighted graph. As stated above, Ding is concerned with how this method might be used for tissue sample data clustering. Moreover, Uomini discloses a method for posting messages to newsgroups and including category and sub-category fields in the header of the post to allow for categorization of posts beyond the basic newsgroup categories provided by newsgroup management entities. This allows users of the system to effectively create new newsgroups without having to engage in the long processes established by the newsgroup management entities for creating a new newsgroup. The cited art makes a brief mention of cross-posting to multiple newsgroups, though, only with respect to stating that it is possible to do so when posting a message. Uomini is silent regarding newsgroup clustering and weighted graphs, and thus does not makeup for the deficiencies of Ding with regard to teaching

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that the vertices of a weighted graph are newsgroups and that the edges are cross posts between the newsgroups. Furthermore, Ding is concerned with clustering of tissue samples and Uomini is concerned with categorization of newsgroup postings. The references are not analogous, and provide no motivation to be combined as suggested. However, *assuming arguendo* that the references could be combined, they still fail to teach or suggest that newsgroups are represented as vertices of a weighted graph, and cross-postings relating to the newsgroups are represented as edges.

In view of the foregoing, applicants' representative respectfully submits that Ding and Uomini, alone or in combination, fails to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 21, 30 and 40-42 (and claims 2-20, 22-29 and 31-39 that depend there from), and thus fails to make obvious the subject claimed invention. Accordingly, this rejection should be withdrawn.

IV. Rejection of Claims 35 and 38 Under 35 U.S.C. §103(a)

Claims 35 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ding ("Analysis of gene expression profiles: class discovery and leaf ordering", RECOMB 2002, April 2002), in view of Uomini (US Patent 5,819,269), and further in view of Gage *et al.* (US Patent 5,923,846). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Ding and Uomini, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Claims 35 and 38 depend from independent claim 30. As noted *supra*, Ding and Uomini do not teach or suggest each and every element of the subject invention as recited in independent claim 30 and Gage *et al.* fails to make of for the deficiencies of Ding and Uomini with regard to this independent claim. Gage *et al.* discloses method of uploading and downloading files from a bulletin board that represented as objects within messages. The cited art is silent regarding newsgroup clustering and weighted graphs. Therefore, Ding, Uomini, and Gage *et al.*, alone or in combination, fails to teach or suggest that newsgroups are represented as vertices of a weighted graph, and cross-postings relating to the newsgroups are represented as edges. For at least this reason, this rejection should be withdrawn.

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CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP467US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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